this application is seen to be different from that of either Maedgen or Waldrum, alone or in combination. The Maedgen system uses a rotating disk with multiple apertures (holes). Each aperture meters eggs at a different rate depending upon which aperture is selected. The aperture or opening on the Stocker system is the same size as the rotor or other means that meters the eggs. The Stocker system meters via a positive displacement of eggs (each notched or grooved out area is a measured amount of eggs being displaced from the hopper to the collection bin). Maedgen's system uses gravity or suction to pull the eggs through an opening (not positive displacement). The claims now spell out the difference in the metering means.

The Maedgen system has a typical venturi (air-actuated spreader) where the eggs are released. The unit of this invention uses a mixing chamber which may be constricted at the opening end, the result of which is a decrease in the air velocity in the chamber compared to the air velocity outside the chamber (during flight). Also, the claims now recite that the delivery tube into the chamber has a flared end, which also decreases the entry speed of the insects into the chamber. This decreased air velocity is a key point in insect survival (lace wing insects are very delicate and cannot tolerate high speed sheer).

In the addition of the adhesive to the eggs (the slower the eggs are traveling the better coverage of the eggs with the adhesive. Also, in Maedgen's system the eggs are released in the venturi section of his air-actuated spreader where the air speed has been increased **not** decreased. This can prove disastrous, but in any event is a different modus operandi, not equal to that of Stocker.

Waldrum's system uses a conventional venturi type feeding device. This system produces an aqueous slurry of seeds (particulate) into the air, in lieu of dry seeds. The Stocker system produces insect/insect eggs that are coated

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with an adhesive, not insects/insect eggs in a slurry which may or may not stick to a surface such as leaves which is one of the objects of the Stocker invention. Waldrum's system is used to deliver seeds in a aqueous slurry to the ground as a cover crop or ground cover. The desire of Waldrum is reach the ground, not to stick the distributed material to plants as in the Stocker system, which sticks insects/insect eggs to target plants for pest control.

Maedgen's system delivery tube is only a tube that connects to the top of the mixing chamber. Stocker's delivery tube which may be but need not be a J-tube, connects both the collection chamber and mixing chamber **and is positioned within the mixing chamber.** It also provides the additional function of causing its own vacuum along with releasing eggs into the chamber where they will not come in contact with anything but the air and adhesive flowing through the mixing chamber. See the claims as amended. Remember that the air velocity of the moving insects of Stocker has been slowed down in the mixing chamber due to the flared end of the delivery tube; not speeded up as in the venturi device of Maedgen after entry. This means that Stocker's J-Tube is not the same as Maedgen's delivery tube. The addition of any structure from Waldrum and/or any of the other references cited does not overcome the deficiency of Maedgen.

It is key that the nozzles which may be positioned anywhere within the chamber, deliver the binder in the chamber after the insects are passed into the chamber as to interact with the eggs/insects in the chamber so the sticky eggs/insects do not come in contact with the walls of the mixing chamber which could cause damage thereto. Since the eggs/insects are dosimetrically metered, good individual coverage is achieved and large agglomerations are avoided. Such large agglomerations could fall off the single leaf of a tree or plant. With this in mind one can see that the use

of slurry as has been suggested by the combination with Waldrum goes counter to the purpose of Stocker who wants to **avoid hitting the ground.** The sticky eggs etcetera don't fall to the ground which is off target. This need is recited in one or more specific claims.

The invention of the Stocker system releases sticky eggs or other sticky matter, that sticks to the target crop. The underlying philosophies of the Maedgen (alone or in combination with Waldrum) invention versus the Stocker invention are very different and cannot be interchanged.

Several other references have been cited by the Examiner to show specific limitations of Stocker's claims to be obvious. Suffice it to say that the item found in Sperber and others are not claimed unto themselves to be new, but are new in the environment of Stocker. Thus when placed in dependent claims, the dependent claims containing these limitations are believed to be patentable if the main claim from which they depend is patentable.

Turning further to specific comments of the Examiner and their believed inaccuracy and/or inapplicability. Thus in paragraph 8 the Examiner refers to the Waldrum reference at column 9 line 49 through column 10 line 19 and states that "*Waldrum teaches that to ensure the adhesion of the particulate matter to plants, it is necessary to coat the particulate matter ... prior to being dispensed into the air...*" . A thorough reading of this section of the Waldrum reference fails to teach anything like that. Rather his discussion is limited to carrying the seed from air to the GROUND in a controlled pattern. See column 9 line 35 to 37. This is totally different from Stocker, and therefore the attempt to combine Waldrum with Maedgen fails, because the cited teaching is not present, and there is no reason to want to have the particulates of Waldrum which are seeds, stick to plants for any reason whatsoever. Thus there is no basis for the combination of references. Therefore all of

the rejections based on Maedgen combined with Waldrum and those rejections based on this combination with additional references thrown in, should be withdrawn.

As to Spivak and the inclusion of optical sensors, such instruments are deemed conventional when viewed in a vacuum- no pun intended. But their presence in this very specific environment is new, and since the main claims are believed to be patentable, so should the dependent claim that includes this extra limitation.

The discussion now turns to the optical sensors and their purposes. As cited by the Examiner at page 7 last paragraph in Spivak, the sensor determines clogs and causes a reverse mechanical action to transpire and undo the clog. Such a sensor would be work in applicant's device, wherein the sensor issued to stop flow in its entirety. A sensor is not a sensor for all purposes. The added element is not the same and therefore the rejection of claim 22 and any dependent claims thereon fails, when the addition of Spivak is cited as the basis for the rejection.

The Examiner has cited the Endicott reference and has combined it with Maedgen and Waldrum for reasons best known to the Examiner, but which seem totally inappropriate to this writer. The reference deals with the separation of particulates of different sizes. The Examiner states that concept of having a reverse venturi at the front of applicant's apparatus would be old based on the fact that Endicott shows a reverse venturi, and then he says it would be obvious that a reverse venturi could be put on the Maedgen article. The so-called reasonably prudent individual would NEVER considering adding a reverse venturi to the front or inlet 21 of Maedgen per page 8 lines 7-8 as the astute Examiner seems to suggest. It is the contention of this writer that a reverse venturi added to the inlet of Maedgen would be to no effect as any effect it created would be overcome and obviated by the regular venturi already

present from the point 21 to the location 22. The assumption of applicability seems to lack merit. Accordingly this rejection should be withdrawn.

The Examiner has chosen to overlook narrow claim 23 by saying that the spur gear is but one of many metering devices that would work. While that may be true, it is also known that very narrow claims can often be had. It is submitted that the use of a spur gear for this particular metering purpose is novel and as such this narrow claims should be issued.

As to the back pack blower coupling means, and the mounting of the apparatus on an airplane or other vehicle these claims are very narrowly drawn. It is believed that the underlying claims are patentable over the art and that the addition of the minor extra hardware renders the 22-24 claims even more narrow. Since the undersigned contests the position of the Examiner on the basic coupling of Maedgen and Waldrum, the position asserted is equally if not more applicable here. The rejections that include Kitterman should be withdrawn.

The Examiner is urged to note claim 22 again, especially in view of the amendment. None of the references combined by the Examiner show the geometry as spelled out in this claim. The injectors squirt in their adhesive angularly just ahead of the release of insects or eggs. Here and in the other claims, the eggs are for a small finite time are moving in an airstream, then covered with glue and then they continue to move in the airstream and out into the atmosphere for ultimate delivery. This unique geometry is not taught by the prior art. As such these claims should be allowed.

The Examiner is advised that applicant and counsel were familiar with the Maedgen reference prior to examination. Special efforts have been taken to differentiate the claims of this application from the claims and procedure thereof.

Still, if certain minor language claims are desired by the Examiner, counsel would readily entertain such changes in a telephonic communication in order to hasten the prosecution of this case toward allowance. The technology disclosed herein is being utilized in Northern California and needs to be protected.

Respectfully submitted,

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